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SRG

STRING RESONANCE GENERATOR

E10 - User Manual

E Series

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1 SET UP

1.1 Overview

The SRG E Series are a line of handheld, internally powered string resonators, based on nano scale SMDI architecture
Available in monophonic and polyphonic models.

The SRG E10 package includes :

- **E10 Handheld Integrated Polyphonic Guitar Resonator**
- **9V Alkaline-Manganese Primary Cell Battery**

Optional Accessories :

- **XL6 Divided String Sensor Kit**
- **HC-1 Holster Clip**
- **RX-9 Rechargeable 9 volt Battery**

The **E10** is the world's first Handheld Polyphonic Resonator.
Featuring 3 modes of operation, and effect triggers for **LPF, HPF** and **MUTE** for both Left and Right Channel.

The **E10** can operate in Polyphonic Mode or Monophonic Mode, simply by switching OFF the Left Channel or Right Channel Power Switch.

The **E10** is designed specifically for guitar, featuring highly inductive, low resonant frequency sensor and driver coils - directly wound on neodymium core magnets.

The **E10** also features protruding **FANG** rails for accurate string tracking and 2 ultra bright - deep blue LED power indicators – one for each string.

SET UP >

After unpacking the box, check that the power switches are in the **OFF** position (downwards), remove the battery cover and slide the included 9 Volt Battery into the battery compartment until firmly connected, then replace the cover.

The battery cover is precision crafted to a tight slip-fit tollerance and held in place by mechanical tension; It is therefore important to fully close the battery cover, and take care not to misplace or step on the cover when removed.

Be sure to check that the power switches are **OFF** before connecting the battery, and that the **+** polarity is correctly orientated – **as illustrated on page 6**.

Switch the 2 power switches Left and Right (fully upwards) to the **ON** position.

The blue LED power indicators will light up instantly when the power switches are on. If the LEDs do not light, or flicker – either the battery is not firmly connected, or the battery may be weak or dead.

The **E10** is fully operational the moment the 2 blue LEDs are on.

1.2 Battery Compartment

The E Series features an ultra-fast *slide-in* battery compartment for an internal 9 volt primary cell.

Eliminating the frustration of fumbling in the dark with clumsy floppy wire 9 volt battery connectors, the E Series slide mount battery port allows rapid battery changes in as little as 5 seconds.

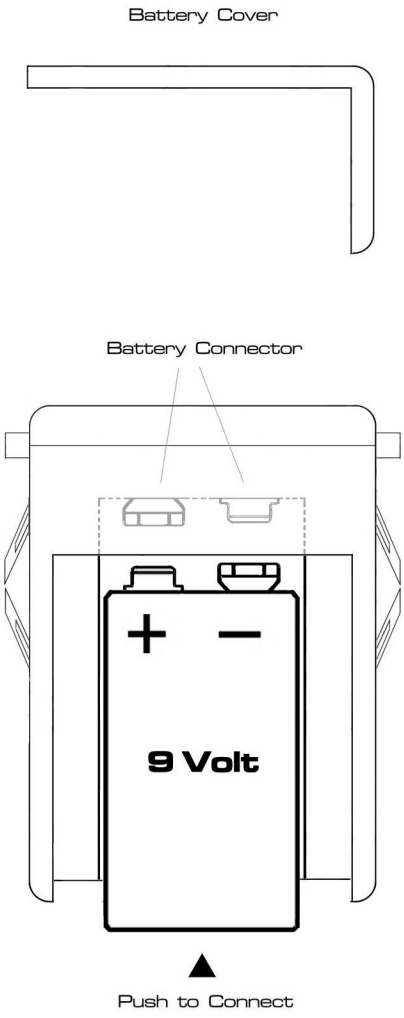
The **E30** includes a 9 volt Alkaline-Manganese primary cell, which is safely disposable. Under No Circumstances is the battery to be recharged or dismantled. The storage life of the battery is 5 years.

Do not install a typical rechargeable NiMH battery, as typical rechargeable 9V batteries actually supply only 8.4 volt rather than 9 volt.

The E30 requires a full 9 volt at 55 mA for stable operation.

If a rechargeable battery solution is needed, then use the optional RX-9 Rechargeable 9 volt Battery, which supplies a full 9.6 volts and 200 mA/h of charge.

WARNING - Damage resulting from the use of incorrect rechargeable batteries, oversized batteries or incorrect installation can invalidate the warranty !



E10

HANDHELD INTEGRATED POLYPHONIC GUITAR RESONATOR

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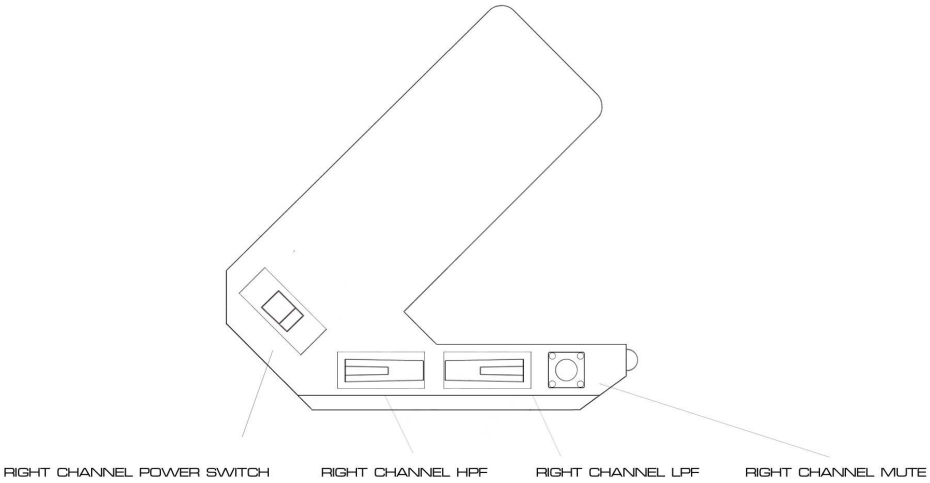
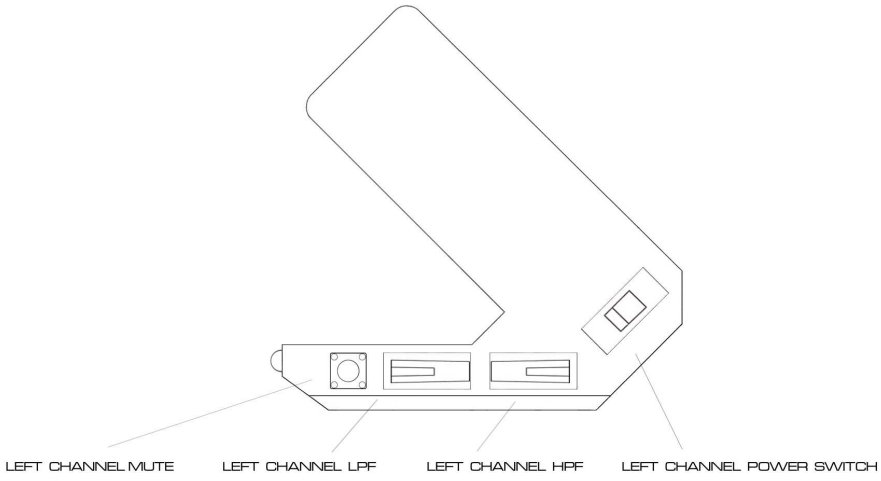
Right Side View



Left Side View



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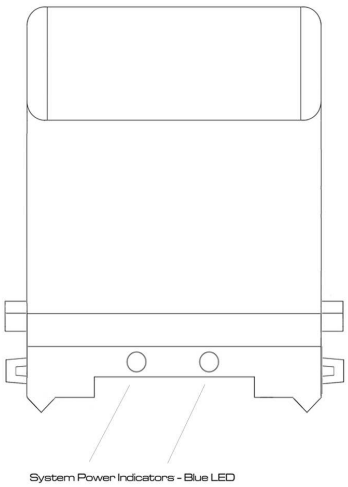
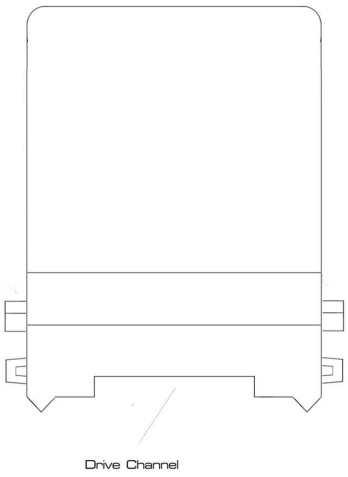
Front View



Back View



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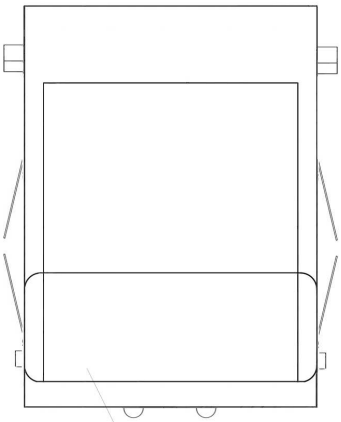
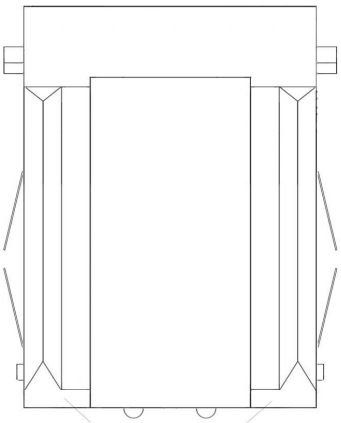
Top View



Bottom View



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1.3 Functions

The E10 includes 3 onboard trigger effects per channel :

- **LPF** (low pass filter)
- **HPF** (high pass filter)
- **MUTE**

The forward left side trigger activates Left Channel **LPF** Mode,
attenuating high frequencies by 26 dB, with the effect of a bass boost,
which produces a cello effect on heavy gauge strings.

The backward left side trigger activates **HPF** Mode,
attenuating low frequencies and enhancing harmonics.

The forward left side round button activates the Left Channel **MUTE** function.

The forward right side trigger activates Right Channel **LPF** Mode,
The backward right side trigger activates **HPF** Mode.

The forward right side round button activates the Right Channel **MUTE** function.

Rapid triggering or alternated triggering produces some very interesting special effects available only to the SRG.

2 OPERATION

2.1 Instrument Compatibility

The **SRG** functions on any stringed instrument with ferromagnetic strings, including plain steel strings and steel core strings.

The **E10** is equally effective on light and heavy gauge strings, and optimised for a 12 mm bridge saddle spacing, as the pole spacing on the **E10** is 11 mm, accounting for a standard 648 mm string length, and 42 mm nut.
However the **E10** also works perfectly well on narrow Steinberger guitar spacing.

The inner tracking rails on the **E10** span 4 strings, 2 support strings and 2 resonated strings. The unique "Fang" rail design allows more stable and accurate string mounting and tracking.

The E10 should Only be held over an XL6 Divided String Sensor in Polyphonic Mode! Where each driver feeds a single coil, for normal hard driving string resonance.

The E10 should NOT be held directly over a Normal Guitar Pickup in Polyphonic Mode, as the combined feedback of 2 drivers can cause harmonic saturation and signal overload!

The **SRG** is also capable of driving Acoustic Steel String Instruments without electromagnetic transducers , although the tonal effects are less audible.

2.2 Handling

The **SRG E Series** is designed to be handheld between the thumb and index finger with the middle and ring fingers free to operate the triggers, with the LEDs facing towards the nut of the instrument.

2.3 String Mounting & Tracking

Place the guide rails on the 2 outer support strings, with the support strings on the inside of the "Fangs".

The SRG should rest absolutely level on the guide strings,
and never tilted to one side.

It's important to get a feel for the optimal positioning of the SRG,
through persistent practice. Proper use of a cello bow is not learned in a day,
and neither is the proper use of an SRG – both take practice!

2.4 String Driving

String driving (resonance) will initiate immediately after holding the SRG steady and level on the support strings.

Any deviation from top dead centre above and parallel to the driven string will result in various effects, the most obvious being fade in / fade out, and reverse envelope effect.

All positional effects are a result of deviation from parallel top dead centre above the driven string.

The best path to finding desirable effects is through constant experimentation.

2.5 Input Transducer Effects

In Monophonic mode, various Legato and Staccato effects are possible through the proximity and forward / backward angular relationship between the driver and the magnetic core of the input transducer (pickup) on the instrument.

Most useful effects depend on this distance and angular relationship

Provoking the input transducer in every conceivable manner will result in the discovery of more than a few useful effects.

Note* The use of a headphone amp during the lower end of the learning curve is highly recommended.

Extraordinary efforts have been made in molesting the guitar to badly imitate the sounds of other instruments.

The best advice this manual can offer, is to use "other instruments" rather than trying to imitate them, and discover "New" sounds with the **SRG**.

2.6 Onboard Effects

The **E10** has 3 Operating Modes :

- **Normal Mode**
- **LPF Mode**
- **HPF Mode**

And also **MUTE** function

2.7 Maintenance

If possible - always store the **SRG** in a dry, dust-free environment at room temperature (15 - 20° C).

Always remember to switch the **E10** OFF when not in use.

Clean the **SRG** using a soft cotton cloth or t-shirt soaked in warm water, tight places may be cleaned using a cotton bud.

To remove minor scratches – the **SRG** may be polished using 1000 grit wet & dry sandpaper and rubbed with vegetable oil.

Never attempt to clean any part of the **SRG** with alcohol, acetone, ammonia, or any household cleaner!

TECHNICAL SPECIFICATIONS

SRG MODEL E10

Pole Spacing	11 mm
Supply Voltage	9 V
Power Output	500 mW
Driver Resonant Frequency	2300 Hz
Sensor Resonant Frequency	2300 Hz
Core Magnets	Neodymium
Quiescent Current Drain	8 mA
Operating Current Drain	55 mA
Voltage Gain	46 dB
LPF Attenuation	26 dB
THD	0.2%
Storage Temperature	15° - 25° C
Operating Temperature	0° - 35° C
Width	44 mm
Length	60 mm
Height	60 mm
Mass (without battery)	75 g

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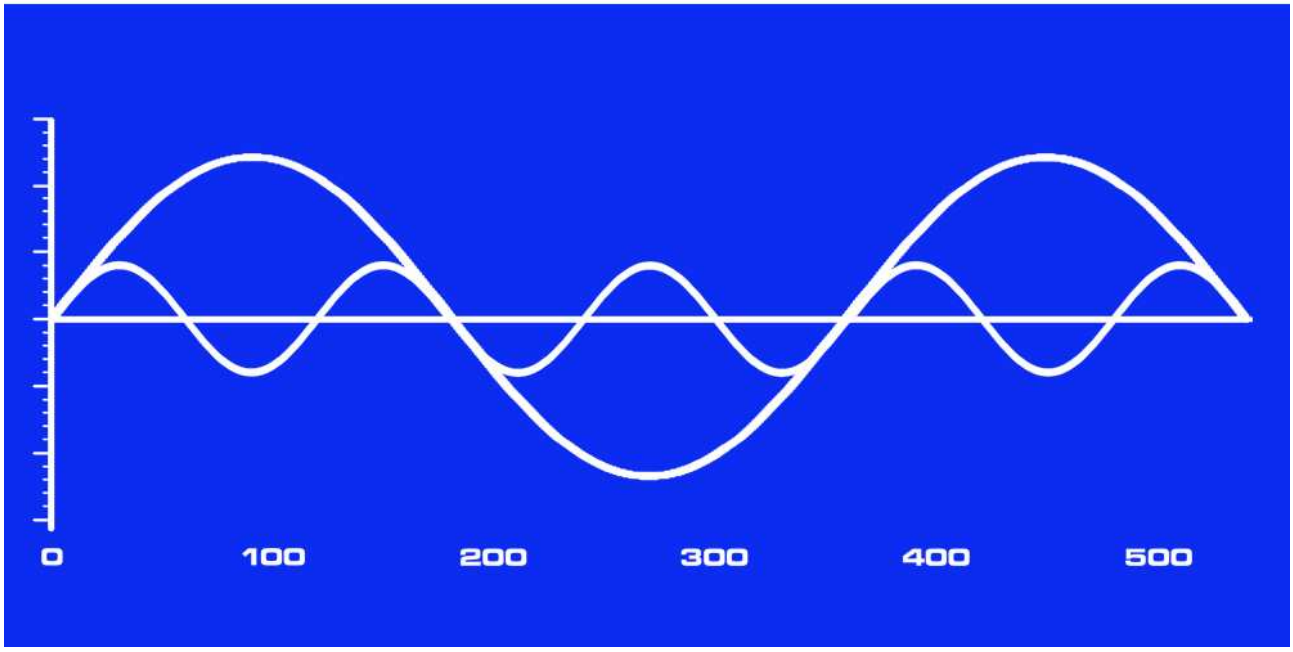
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